REMARKS

On an initial note, Applicants wish to thank the Examiner for indicating that Claims 2, 5, and 14 contain allowable subject matter. Applicants have amended Claims 2-3, 5-7, 11-12, and 14-16, canceled Claims 1, 4, 13, and 17-20, accordingly, without prejudice as to patentability, including the doctrine of equivalents, and added new Claims 21 and 22, in order to expedite issuance of a patent. The amendments to the pending claims and newly added claims are fully supported in the specification and drawings as originally filed. The Applicants also have submitted herewith a substitute specification, excluding the claims, in both clean and markup versions, in accordance with 37 CFR 1.125(b). The Applicants submit that these minor amendments and corrections herein are made without prejudice as to patentability, including the doctrine of equivalents, and that the substitute specification includes no new matter.

Claims 1-20 Are Pending

Although the Examiner indicated in block 4 of the Disposition of Claims section of paper No. 20060627, the only Claims 1-16 were pending, the Examiner acknowledged added Claims 17-20 on page 4, para. 3.

The Pending Claims Are in Allowable Form.

The Examiner rejected Claims 1, 3-4, 6-8, 10-11, 13, and 15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 2002/0073011 ("Brattain et al.") in view of U.S. Patent No. 5,983,227 ("Nazem et al.") in further view of U.S. Patent Application No. 2002/0165812 ("Lukose"); rejected Claims 9, 12, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Brattain et al. in view of Nazem in view of Lukose in further view of Meyer et al.; and rejected Claims 17-20 as being unpatentable over Brattain et al. in view of Nazem in view of Lukose in further view of Meyer et al. The Applicants respectfully disagree.

Nevertheless, in order to expedite issuance of a Patent, Applicants have amended Claims 2, 5, and 14 to include all limitations of the base claim, canceled Claims 1, 4, 13, and 17-20, and have amended the remaining claims to be dependent upon one of the allowed Claims 2, 5, and 14. Additionally, Claims 21 and 22 were added. Claim 21 is dependent upon allowed Claim 2 and Claim 22 is dependent upon allowed Claim 14. Correspondingly, all remaining claims

should be allowable in accordance with para. 4, page 5, of the Office Action, paper No. 20060627.

Claims 1-4, 7, 10, and 17-20 are not obvious.

Even though Applicants have amended and canceled claims in order to expedite issuance of a Patent, Applicants submit that the amendments were not in order to overcome the cited references.

In the Background Section of the Application the Applicants described problems associated with the model/methodology shown in FIG. 1 whereby a quote server 13 may miss stock quotes sent from the field vender 12 if numerous customers/traders 15a-n stock quotes simultaneously. This can result in the customers/traders 15 not being provided the most current stock quote information needed to make trading decisions. The exemplary system embodiment of the Applicants invention is perhaps best shown in FIG. 2. According to this embodiment, the problems faced by conventional models/methodologies was solved by having a system including a combination of a quote server 23 and contact server 26 can perform the functions previously left entirely to the quote server 13. According to the exemplary embodiment, the contact server 26 receives stock quote requests from the traders 25a-n, requests stock quotes from the quote server 23, and disseminates stock quotes to the traders 25a-n. I.e., the quote server 23 receives stock quote requests from the contact server 26 rather than directly from each of the traders 25a-n. This is a very important feature. By the contact server 26 requesting and receiving the stock quote from the quote server 23 and disseminating the respective stock quotes, the number of requests to the quote server 23 for the same information can be reduced and the quote server 23 is able to spend more time receiving stock quotes than otherwise possible according to the conventional systems and methodologies. Correspondingly, the system according to the exemplary embodiment is better able to provide the most current stock quote information. Further, where typically a new quote server 13 would need to be added when approximately 60-100 new customers are added according to conventional systems and methodologies, according to the exemplary embodiment, the contact server 26-quote server 23 combination enables the system to serve between about 1000-2000 traders 25a-n per contact server 26-quote server 23 combination. This novel and nonobvious solution was not recognized by the prior art.

Brattain et al. was apparently introduced to support the premise that the preamble element of "disseminating stock quotes" of Claim 1, for example, was in prior existence. As indicated by the Examiner, see Paper No. 20060627, para. 2, pages 2-3, however, Brattain et al. does not disclose, teach, or suggest "receiving [stock quote] information from a provider of the information by a quote server" or "sending the information [or stock quote]...to a contact server which...[disseminates] the information." Stated another way, the Examiner implicitly admits that Brattain et al. does not disclose, teach, or suggest any of the positively claimed elements of Claim 1, for example. Further, although the Examiner introduced Brattain et al. as disclosing "a method and system for disseminating real time information" (the preamble of Claims 1 and 13, respectively), Brattain et al. does not disclose, teach, or suggest either.

Applicants respectfully submit that Brattain et al. was not considered for what it teaches "as a whole" as required by MPEP 2141. That is, when considered for what Brattain et al. teaches "as a whole," rather than for individual bits and pieces which separately may have similarities to individual separate bits and pieces of Applicants claimed invention, Brattain et al. teaches a client account and information management system which integrates a plurality of different information types, such as database records, word processing to files, emails, web pages, and websites, as a database application on a web-enabled database serve; which allows sales and marketing teams to access the system, such as with the laptop computer, through an intranet or remotely through an Internet to save and retrieve client information; and which provides links to websites, such as stock quoting websites and client's home pages to allow a sales team member to use the system to quickly gather information regarding a company's latest new announcements, stock performance, and financial status.

More specifically, Brattain et al. teaches a system and a method including a Partnership Account Management (PAM) System which includes a Lotus Notes database server (31) and a PAM database server (32) which can receive and parse e-mail messages to provide a centralized repository for client information, see paras. [0032] and [0036], and which can display fundamental client information (including current stock value, address of client's home page, client's mailing address, etc.) through a main screen (see FIG. 4) which includes hyperlinks to more detailed client information, see paras. [0041]-[0043] and [0046]. Regarding stock quote information, Brattain et al. merely teaches establishing a web page (see Brattain et al. FIG. 4) including a stock quote hyperlink (41) which can access, for example, the Cable News Networks

Financial Network server or alternative financial news server (50), as one piece of information populating a main web page (40) selected to display information about a particular client.

The Applicants respectfully submit, therefore, that other than through impermissible hindsight, one skilled in the art would not reference Brattain et al. to try to assemble the Applicants invention. The Applicants do not claim that the Applicants invented conventional quote servers or direct access thereto by news/information customers, traders, or other users. In fact, Applicants specifically describe access and stock quote accuracy problems resulting from the implementation of quote servers 13 according to conventional systems and methodologies. Brattain et al. merely teaches direct user access of quote server (50)--an implementation methodology that the Applicants found to be problematic and therefore sought to change.

Nazen et al. was introduced to support the premise that the element of "receiving information from a provider" was in prior existence. Nazen et al., however, "as a whole," teaches a custom page server (104) which uses cached user templates and live data accessed from third party sources, e.g., sports, stock, and news servers, to deliver custom pages to a user of the Internet. *See* col. 3, line 59 to col. 4, line 2. Correspondingly, Nazen et al. merely teaches direct user access of stock server (232)--again, an implementation methodology that the Applicants found to be problematic and therefore sought to change.

Additionally, because Nazen et al. was not directed at solving the problems or source of the problems that concerned Applicants, Nazen et al. teaches permanently storing data received from the sports, stock, and news servers (230), (232), (234), and direct access from shared memory to improve the speed at which the custom web page can be displayed in the event of a page server crash. *See* col. 4, lines 4-13. To allow for the quick loading of the web page, rather than re-query the sports, stock, and news servers (230), (232), (234), previously stored information in his retreat from shared memory (212). *See* col. 4, lines 13-23. Although this is touted as a "great feature from a user convenience standpoint," *see* col. 4, lines 9-13; to a stock trader, for example, this would be a significant handicap as it would tend present stale information which could result in the stock trader making an uninformed and ill advised decision based on the stale information as noted in the Background section of the Application. Thus, although Nazen et al. when considered "as a whole" is unrelated to Applicants' claimed invention and the problems, source of the problems, and Applicants solutions to such problems; if one or to

consider the bits and pieces of Nazen et al. separately, the third party server data display feature using shared memory (212) teaches away from and would be destructive to Applicants claimed invention.

Lukose was introduced to support the premise that the element of "sending...[requested] stock quote [information] to a contact server" was in prior existence. Lukose describes a method for selling contingent information designed to make the incentives for the seller more in line with incentives for the buyer to thereby increase the likelihood that contingent information goods will be transacted between sellers and buyers. The method includes receiving an offer for the information with at least one contingency, setting a condition for the contingency in the received offer, providing the information in response to the offer, determining if an event has occurred on which the condition for the contingency is based, and then receiving a contingent payment if at least one condition for the contingency is satisfied after the information has been provided. *See* Lukose, paras. [0046]-[0050] and Claims 1, 6, and 8.

Lukose does not disclose, teach, or suggest " sending a respective stock quote according to said stock quote request to said contact server by said quote server," as featured, for example, in Claim 1. The example detailed in paras. [0046]-[0050] and referred to by the Examiner illustrates a scenario whereby a buying system (14) operator (A) identifies a selling system (12) having stock price information for company X's stock. The buying system (14) operator (A) submits a request for the report with a contingency. The selling system (12) sets a condition that company X's stock will be $50 on 7 p.m. EST Dec 31, and sets a contingent payment function (the payment of $25 to selling system (12) if company X's stock is greater than or equal to $50 at years end, nothing in the stock is less than $50). In order for the selling system (12) [sic] to determine if the event on which the condition is based has occurred, in this example, the selling system (12) automatically checks the price of company X's stock at 7 p.m. on December 31 using a third party *quote server* (e.g., www.quote.com). Correspondingly, Lukose merely teaches direct user access of the server located at www.quote.com--again, analogies to an implementation methodology that the Applicants found to be problematic and therefore sought to change.

To establish a proper prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the

knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

From the discussion above, not only is there no motivation to combine references, even if the references were somehow able to be combined, they would not alone or in combination disclose, teach, or suggest each and every element of Claim 1, for example. Nor would they disclose, teach, or suggest each and every element of Claim 4, 13, or 17 for similar reasons. Thus, the references do not render obvious Claims 1, 3-4, 6-8, 10-11, 13, or 15.

Claims 9, 12, and 16 are not obvious.

Claims 9, 12, and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Brattain et al. in view of Nazem in view of Lukose in further view of Meyer et al.

Meyer et al. was introduced to support that tracking history was in prior existence. Meyer et al. describes a system for allocating funds in a plurality of stock portfolios. Meyer et al., however, as a whole, teaches a mutual fund hybrid that allows investors to invest in preestablished stock portfolios which results in a pooling of assets similar to that of mutual funds and a direct ownership of stock shares and/or fractions. Meyers et al. completely strays from the teachings of the Applicants and is clearly an example of a reference that was assembled to account for bits and pieces of the Applicants claimed invention.

Claims 17-20 are not obvious.

Claims 17-20 were rejected as being unpatentable over Brattain et al. in view of Nazem in view of Lukose in further view of Meyer et al.

Although independent Claim 17 included numerous additional features beyond that of Claim 1, the Applicants were unable to identify such features in the cited patent documents. Nor did the Examiner identify the cited documents as disclosing, teaching, or suggesting such features. Correspondingly, such features have been shown to be nonexistent in the cited patent documents.

In commenting upon the references and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between the references and the present invention have been mentioned, even though such differences do not appear in all of the claims. It is not intended by mentioning any such unclaimed distinctions or making any amendments herein to create any implied limitations in the claims. Not all of the distinctions between the cited patent documents and Applicants' present invention have been made by Applicants. For the foregoing reasons, Applicants reserve the right to submit additional evidence showing the distinctions between Applicants' invention to be novel and nonobvious in view of the cited patent documents.

The foregoing remarks are intended to assist the Examiner in re-examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered to be exhaustive of the facets of the invention that render it patentable, being only examples of certain advantageous features and differences.

CONCLUSION

In view of the above remarks Applicants submit that the claimed invention is in condition for allowance. As such, the issuance of a Notice of Allowance is respectfully requested.

Respectfully submitted,

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MARKED-UP FORM

SUBSTITUTE SPECIFICATION

NON-PROVISIONAL PATENT APPLICATION

SYSTEM AND METHODS FOR DISSEMINATING REAL TIME INFORMATION

Application No. 09/736,707

Inventor:

James F. Howell, et al.

SYSTEM AND METHODS FOR DISSEMINATING REAL TIME INFORMATION

BACKGROUND OF THE INVENTION

[0001] **1. ~~Technical~~ Field of The Invention**

[0002] The present invention generally relates to data processing ~~in general and, in particular,~~. Particularly, the present invention relates to a system and methods for disseminating information.

[0003] **2. Description of the Related~~Prior~~ Art**

[0004] It has long been recognized that accesses to timely information regarding current conditions in various commodities and financial markets are essential to profitable trading and investment. Many complex investment strategies require precise and careful timing of specific transactions in response to fluctuating market conditions. This is particularly true in today's fast-moving markets where the ability to respond quickly to changing market conditions may mean the difference between substantial profits or devastating losses. Many investors rely heavily on real-time stock quotes when implementing their investment strategies, and most of those investors get their real-time stock quotes from a brokerage company. Thus, a successful brokerage company must be able to provide stock quotes as accurately and efficiently as possible.

[0005] Stock quotes are currently provided by stock exchanges, such as New York Stock Exchange, NASDAQ, etc., to a field vender such as Bloomberg or Comstock. After parsing the stock quote information received from the stock exchanges, the field vender then sends the stock quote information to a quote server at a rate of about 1,000 to 2,000 packets per second. The quote server is typically located at a regional brokerage office such as TradeCast or Merrill Lynch. The quote server has a database and keeps track of the history of each specific stock quote. If the stock quote is not in the database, the quote server adds the stock quote to the database. If the stock quote is already in the database, then the quote server updates the database. Next, the quote server checks to see if a registered user has requested that particular stock quote. Most brokerage companies use a subscription based system. If one workstation or trader registers a particular stock quote, then every time the tick or quote comes in, the trader gets an update on that stock quote. If numerous customers are requesting a stock quote at the

same time, then the quote server will take some time to send the requested stock quotes to all the requesting customers. If the quote server spends more time delivering stock quotes, however, then the quote server must spend less time getting stock quotes. Thus, when the above-mentioned response time to the requesting customers takes too long, the quote server may miss some of the stock quotes sent by the field vender. As a result, investors may not have the most current stock quote information needed to make intelligent trading decisions.

[0006] Consequently, it would be desirable to provide an improved method to disseminate the information, e.g., ~~(~~deliver stock quotes,~~)~~ to investors in real-time.

SUMMARY OF THE INVENTION

[0007] In view of the foregoing, embodiments of the present invention provide an improved method to disseminate the information to investors in real-time. In accordance with an embodiment of the present invention, quote information from a provider is received by a quote server. In response to a quote request from a user to a contact server, the contact server requests the quote request from the quote server. The quote server then sends a respective quote according to the quote request to the contact server. In turn, the contact server disseminates the quote to the user. By having to send the requested quote information only once, the quote server is able to spend more time in receiving quote information and less time in distributing the quote information. A contact server enables the system to serve 1,000 - 2,000 people per combination of the quote and contact server.

[0008] All objects, features, and advantages of the present invention will become apparent in the following detailed written description.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The invention itself, as well as a preferred mode of use, further objects, and advantages thereof, will best be understood by reference to the following detailed description of an illustrative embodiment when read in conjunction with the accompanying drawings, wherein:

[00010] Figure 1 is a block diagram of a stock quoting system according to the prior art;

[00011] Figure 2 is a block diagram of a stock quoting system in accordance with an embodiment of the present invention; ~~and~~

[00012] Figure 3 is a flow chart of a stock quoting system according to the prior art; and

[00013] Figure 4 is a flow chart of a method for delivering stock quotes in real-time utilizing the stock quoting system in Figure 2, in accordance with an embodiment of the present invention.

DETAILED DESCRIPTION ~~OF THE PREFERRED EMBODIMENT~~

[00014] The present invention will now be described more fully hereinafter with reference to the accompanying drawings, which illustrate embodiments of the invention.

[00015] Referring now to the drawings and in particular to Figure 1, there is shown a block diagram of a stock quoting system according to the prior art. As shown, a stock quoting system 10 includes a quote server 13 and a database 14. Generally, stock quotes are sent from a source of stock quote 11 to a field ~~vendor~~vender 12 and then to quote server 13. Source of stock quote 11 are typically stock exchanges, such as the New York Stock Exchange, NASDAQ, etc. Field vender 12 ~~are~~ is a trading vender~~vendors~~ such as Bloomberg or Comstock. Stock traders can request stock quotes from quote server via trading stations 15a-15n. In response to a stock quote request, quote server 13 would send a stock quote to a corresponding one or more of trading stations 15a-15n. Because stock quoting system 10 is a closed system, quote server 13 has to finish sending stock quotes to trading stations 15a-15n before quote server 13 can perform other important functions such as reading data from field vender 12. In other words, if quote server 13 spends more time delivering stock quotes, then quote server 13 has to spend less time obtaining stock quotes. As a result, quote server 13 may miss a stock quote (or data packet) from field vender 12. Because quote server 13 does not have the most current stock quote, database 14 could not be updated, and a trader would not have the most current stock quote information needed to make intelligent trading decisions.

[00016] With reference now to Figure 2, there is shown a block diagram of a stock quoting system in accordance with a preferred embodiment of the present invention. As shown, a stock quoting system 20 includes a quote server 23, a database 24 and a contact server 26. Stock

quotes are sent from a source of stock quote 21 to a field ~~vendor~~vender 22 and then to quote server 23. Source of stock quote 21 can be any exchange that generates stock quotes similar to source of stock quote 11 depicted in Figure 1. Field vender 22 parsers the information and multiplexes it to quote server 23 at a rate of approximately 1,000 - 2,000 stock quotes (or packets) per second. Quote server 23 can be any type of server capable of receiving and transmitting information, and can be ~~is~~ located in a regional brokerage office such as TradeCast or Merrill Lynch. Quote server 23 is coupled to database 24 that keeps track of the history of each specific stock quote. If a quote for a particular stock is not in database 24, quote server 23 will add the missing stock quote to database 24. If the stock quote is already in database 24, quote server 23 will update database 24 with the latest information. Stock traders can request stock quotes from contact server 26 via trading stations 25a-25n. Contact server 26 may be, for example, a workstation, a mid-range computer or a mainframe computer. In addition, contact server 26 may be coupled to a network such as a local-area network (LAN) or a wide-area network (WAN). In response to a stock quote request, contact server 26 would send a stock quote to a corresponding one or more of trading stations 25a-25n.

[00017] Referring now to Figure 4, there is illustrated a flow chart of a method for delivering stock quotes in real-time utilizing stock quoting system 20, in accordance with a preferred embodiment of the present invention. After data has been received by a quote server, as shown in block 31, a determination is made by the quote server as to whether or not the received data is a valid packet, as depicted in block 32. If the received data is a valid packet, the received data will be stored in a database coupled to the quote server, as shown in block 33. Otherwise, the received data will be discarded or ignored. Then, the quote server checks to see if a contact server is requesting a particular stock quote, as shown in block 34. If the contact server is requesting a stock quote, the quote server sends the stock quote to the contact server, as depicted in block 36. The contact server may send the stock quote to all traders who have requested that particular stock quote. If no trader has made a stock quote request, then the contact server does not request any stock quote from the quote server. By comparison, Figure 3 illustrates a flowchart according to the prior art where hundreds of traders would request a stock quote whereby quote server 13 would have to send each trader the stock quote, shown in steps 34 and 35.

[00018] As has been described, the present invention provides an improved method for delivering stock quotes in real-time. Because the quote server sends a stock quote to the contact server only when a stock quote request has been made from a trader via the contact server, the quote server is not burdened with the responsibility of delivering stock quotes for each stock quote request. As such, the quote server can dedicate more processing for receiving new stock quote information from a field ~~vendor~~vender.

[00019] It is also important to note that although the present invention has been described in the context of a fully functional computer system, those skilled in the art will appreciate that the mechanisms of the present invention are capable of being distributed as a program product in a variety of forms, and that the present invention applies equally regardless of the particular type of signal bearing media utilized to actually carry out the distribution. Examples of signal bearing media include, without limitation, recordable type media such as floppy disks or CD ROMs and transmission type media such as analog or digital communications links.

[00020] While the invention has been particularly shown and described with reference to a preferred embodiment, it will be understood by those skilled in the art that various changes in form and detail may be made therein without departing from the spirit and scope of the invention.

SYSTEM AND METHODS FOR DISSEMINATING REAL TIME INFORMATION~~CONTACT SERVER~~

ABSTRACT

A system and method~~Method and apparatus~~ for real time dissemination of information is provided. ~~whereas one~~ One server receives and data bases the information while another server disseminates the information; instead of one server receiving the information, data basing the information, and disseminating the information to all users requesting the information.